Climatological Data for September, 1909. DISTRICT No. 12, COLUMBIA VALLEY.

EDWARD A. BEALS, District Editor.

GENERAL CLIMATOLOGICAL CONDITIONS.

The transitional change from summer to winter usually takes place in September the most noticeable feature of which is a gradual increase in the number of days with rain and a corresponding decrease in the number without rain. This change is brought about by the low pressure areas following a track farther south than is the case earlier in the season. The change to the southward of the tracks followed by low pressure areas is a gradual movement and is first observed in British Columbia and a few weeks afterwards in Washington and northern Idaho and finally in Oregon and northern California.

On the 9-10th, 16th and 28th, 29th, 30th disturbances of the winter type moved across Britsih Columbia to Alberta and their influence was felt over a large portion of the Columbia River drainage area, but the centers of these storms were all some distance north of the International Boundary and no low pressure areas of the winter type moved sufficiently far south to include any portion of this district within the central portion of their

path.

On sixteen days the weather was controlled by anticyclones and from the 11th until the close of the 23d, except on the 16th, the weather that usually accompanies this type of pressure prevailed. It was during this period that most of the heavy frosts of the month were reported. In the intervals between the high pressure areas small, sluggish depressions, evidently of convectional origin moved irregularly across the district. Electrical storms, local rains, hail and wind rushes were associated with these disturbances and the fact that so little damage was done is almost entirely due to the undeveloped and thinly settled conditions in the localities where they were most violent.

The rains on the 10th instant were sufficiently heavy to either put out or effectually check the forest fires burning prior to that time. These fires were most severe in the four southwestern counties in Oregon. In the Coquille Valley near Myrtlepoint one fire damaged 1,500 acres of timber to the extent of \$2,050 according to the estimates of the C. A. Smith Lumber Company who are the owners of most of the land in the burnt area. No information regarding the amount of damage from other fires has been received but it is thought the damage this year by forest fires is much less than usual.

TEMPERATURE.

The temperatures averaged generally above normal and the were but few localities where it was below the seasonal average. The first ten days were the warmest, and the coolest weather generally occurred between the 18th and the 24th. The highest mean temperatures were experienced in the bottom lands along the Columbia River from the mouth of the Okanogan River in the north central portion of Washington to the mouth of the Deschutes River in Oregon. Over this narrow strip the mean temperatures ranged between 65° and 70°. The coolest sections were at the headwaters of the Snake River in Wyoming and at the headwaters of the Missoula River in Montana where the mean temperature was between 48° and 55°. Over the greater part of the area under consideration the mean temperature ranged between 55° and 65° being coolest near the immediate coast and at high elevations and warmest in valleys having a low or moderate elevation.

The highest mean temperature was 69.9° at Blalock, Gilliam County, Oreg., in the Columbia River watershed and the lowest mean temperature was 47.8° at Snake River, Yellowstone Park, Wyo. The elevation of Snake River is 7,000 feet and of Blalock, 237 feet. The highest temperature was 105°

at Fairview, Coos County, Oreg., on the 15th, and the lowest was 9° at McCall, Boise County, Idaho, on the 22d.

On the morning of the 18th killing frosts occurred generally throughout the agricultural sections east of the Cascade Mountains, but the damage was nominal owing to the season being so far advanced. Following this date heavy to killing frosts were frequent until the 24th in nearly all localities except in the Williamette Valley and along the immediate coast where no frost sufficiently heavy to injure the staple crops had formed up to the close of the month.

PRECIPITATION.

The rainfall averaged less than usual in nearly all parts of Oregon, Washington, and in the Kootenai, Pend Oreille, Clarks Fork, and Flathead drainage areas; it was above the average in the Snake River drainage area, in Idaho, and Wyoming. In the Columbia River Basin in Washington and Oregon, and in the Puget Sound drainage area, the month was so dry that the supply of water became exhausted in a number of wells, small creeks, and reservoirs; while over the Snake River drainage area in Idaho and Wyoming the rainfall was in some places three or four times as much as the usual amount. The number of rainy days in Idaho was reported to be the greatest on record. There was not a day that rain did not fall some where, but the only dates when precipitation was general were the 10th and the last three days of the month.

Most of the rain that fell was local in character, and generally associated with thunderstorms in mountainous sections. Some of these thunderstorms were very severe, especially those that occurred in the Snake River Valley between the 2d and the 6th. On the 1st a very heavy rain fell on the hills back of Grandview in Owyhee County, Idaho. Gulches in that locality which ordinarily are dry, and had never been known to carry more than 18 inches of water, were filled to a depth of 6 or 7 feet, and the Grandview Canal was seriously damaged. Only 0.40 of an inch of rain fell at Grandview, but it is believed that within a mile and a half of that place the total rainfall was several inches.

On the 2d a heavy shower began in the Shoo-fly region, 12 miles southeast of Grandview, Idaho, and passed from there to Garnet, Idaho, in the southwest corner of Elmore County. The Grandview Canal was still further injured by this storm, making the total damage to the canal by the two storms about \$5,000. At Garnet a part of the well-known Hall orchard was washed out and the cellar of the dwelling house was filled so deep with water that some of the contents were washed into the river. This storm came during a break in the record kept at Garnet caused by a change in observers, therefore the amount of rainfall is unknown.

On this day a heavy rain and hailstorm occurred in the vicinity of Burley and Heyburn, small towns about 150 miles farther up the Snake River. At Burley the streets and cellars were flooded, and some merchandise was damaged in the stores. The most serious feature of this storm, however, was the hail which fell in such large quantities that it had not all melted by the next morning. Some of the hailstones were one and one-half inches in diameter, and hundreds of acres of standing grain in the surrounding farming country was badly injured. Also on this day, the 2d, a storm passed down the Burnt River Valley in Baker Couty, Oreg., which caused a flood in that stream sufficiently high to wash away a few small bridges. The rainfall was heaviest near the mouth of Burnt River between Durkee and a small siding a few miles west of that station. At this place several hundred feet of railroad track were

washed away, and passenger trains were delayed fifteen hours before the necessary reparis could be made. No record of rainfall is kept at Durkee, but at Unity, near the head of Burnt River, 1.82 inches of rain fell between 2:50 and 4 p. m.

On the 3d a heavy rain fell in the vicinity of Juliaetta in Latah County, Idaho, which washed out several hundred feet of the track of the Northern Pacific Railway. No record of the rainfall is kept at Juliaetta, but it is said that the water came down one of the gulches in a wall several feet high. On this day in Baker City, Oreg., 0.55 of an inch of rain fell between 1:57 and 2:17 p. m., which is at the rate of 1.65 inches an hour. The winds attending this storm were light, but the electrical display was brilliant, and the city light and power plant suffered some damage from lightning.

On the 5th a thunderstorm moved mortheastward from some place to the west of Baker City in Baker County, Oreg., to Cornucopia in the same county for a distance of 40 or 50 miles. The center of the storm did not pass over Baker City, and the rainfall measured there on that day does not give an adequate idea of the intensity of the rainfall along the track of this storm. At Cornucopia, 1.02 inches of rain fell between 11 a. m. and 1.40 p. m., and the observer writes that at a little distance from his station the rainfall was so heavy as to be called a cloudburst. In this neighborhood, canyons that had been dry for years were suddenly filled with water, and many bridges between Cornucopia and Carson on Pine Creek were washed away. A few houses were struck by lightning, and the track of the new railroad on Snake was covered by a mud slide that took thirty-six hours to remove.

The rains of the 28th and 29th were very beneficial, as they were the first rains of consequence since spring over a large strip of farming country near the eastern base of the Cascade

Mountains in Oregon.

On and after the 10th, snow occasionally fell at the elevated stations at the headwaters of the Snake River in Wyoming and at the heads of the streams flowing into the Columbia River in Montana. No snow fell in the lower valleys.

The greatest monthly rainfall was 6.39 inches at Goat Lake, Snohomish County, Wash., and there were two stations in Oregon, viz: Telocaset and Beaver Creek, that reported no rainfall during the month. The greatest rainfall in twentyfour hours was 2.28 inches at Hat Creek, Mont., and the 2d-3d. Other heavy twenty-four-hour falls were 2.10 inches at Edie, Idaho; 2.05 inches at Pompeii, Oreg.; 1.92 inches at Goat Lake Wash.; 1.90 inches at Lake Keechelus, Wash.; 1.65 inches at Mountain Park, Oreg., and 1.31 inches at Glenora, Oreg.

RIVER CONDITIONS.

The well-distributed rains at the headwaters of the tributaries of the Columbia River in Montana, and at the headwaters of the Snake River in Wyoming, combined with the diminished evaporation due to an excess of cloudiness, had the effect of keeping the rivers at a slightly higher stage than usual in those States, and also in Idaho, but in Washington and Oregon, where there was a deficiency in rainfall, the stages of the principal rivers were slightly below normal. At Bonners Ferry, Idaho, the mean stage was 2.8 feet above the average for the last five years; the Pend Oreille River at Newport, Wash., maintained a stage of 0.4 of a foot above the average for the last five years, and the Snake River at Weiser, Idaho, averaged 00.7 of a foot above the mean for a similar period. The Columbia River from Wenatchee to tide water was between a foot and a foot and a half below the average obtained from records extending back about ten years.
On the Snake River at Weiser, the highest water occurred

on the 30th, and the lowest on the 1st, but in the lower portion of the Columbia River the highest water was on the 1st and the lowest on the 30th, thus showing a slow but gradual decline in the main portion of the stream during the entire month.

On the 20th dust storms were reported in portions of Morrow and Umatilla counties in Oregon, and high winds occurred in a few localities on the 10th, 16th, 17th, 20th, 25th, and 28th, both in Oregon and in Washington. The winds on the 16th were general over a large area, and those on the 28th were strongest along the coast; a maximum velocity of 68 miles from the southeast having been reported on that day at North Head, Wash.

There were no foggy days east of the Cascade Mountains, and but few to the west of that range.

Table 1.—Climatological data for September, 1909. District No. 12, Columbia Valley.

	İ		yrs.	Tem	perature	, in de	grees	Fahre	nhei	t.	Preci	pitation	, in inc	ehes.	days, re.		Sky	7.	l é	
Stations.	Counties.	Elevation, feet.	Length of record,	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	createst daily range.	Total.	Departure from the normal.	Greatest in 24 bours.	Total snowfall unmelted.	Number of rainy d	Number of clear days.	Number of part'	Number of cloudy days.	Prevailing wind direction.	Observers.
Montana.	Deer Lodge		8	54.4		79	28	29	23	39	2.35		1.29	T.	ļ. <u></u> .	10	7	13		C. D. Demond.
Bison Mountain Columbia Falls	. Flathead	3,100	13 2	57.4	+ 4.1	 88 80	6 16	26 30	19† 23	52 38	3.81 3.47 2.20	+ 1.20	0.87 0.70	1.8 0.0 0.0	11 7 9	15 7	10 12	11	sw.	C. H. Anderson. Mrs. I. M. Kennedy.
Como Darby	do	3, 825		34.0							2.52		0.85	0.0	6	11	7	12		Hiram Platt. W. A. Kerlee. Charles M. Lawson.
East Anaconda	Flathead	5,500 2,975	4	53. 8 54. 7		80 87	24†	32	21	43 51	1.90 0.97		0.55	0.2	8 7	10 17	7 2	13 11	sw.	C. D. Demond. Mike Petery.
Hamilton	. Ravalli	3,575	. 7	57.4		83 1	8	21 32	23 23	35 f	1.99		0.46	0.0	8 11	13		6	n. W.	J. B. Currie. M. K. Landreth.
Jocko	. Missoula	3, 100	11	55. 2	+ 1.7	83	5	30	23	41	' 	- 0.34	0.64	0.0		12	9			George W. Robbins. U. S. Weather Bureau.
Lost Creek	. Deer Lodge	5,200	26	57.1	+ 1.3	87		30	23	45		+ 1.18	0.80	0.0	iö.	13	6	·ii·	· · · · · · · ·	Frank Henault. U. S. Weather Bureau.
Ophir	Powelldo.	8,800	ii.	49.0%		736		251.	23		2.89	+ 0.46	1.20	0.0	7 9	13	5	12	w. w.	E. S. Wilton. S. B. Muchmore.
PhilipsburgPipestone Pass	. Granite	5,275	6	54.54		82*	9	254	23	47	2.90		1.36	T.	9	12	22 4	14	n.	Prof. G. T. Bramble. Mrs. Th. Kiermeyer.
PlainsPleasant Valley	Sanders	2,475	3	57. 1 51. 8	+ 1.1	85 86	7† 1	32 20	23 18	59	1.17	+ 0.72	0.73 0.43	0.0	6	15	0	15	sw.	M. H. Pierce.
Polson	do	2,920 2,700	: 1	57.3		85 87	8 9†	33 31	24 23 23	48	2.32		0.90	0.0	12	15	···i·	14		F. P. Brown. U. S. Reclamation Service
St. Regis	do	2,650 3,600	2 5			89	16	28	23	58	$1.22 \\ 2.72$		0.68 1.10	0.0	5 4	10 21	15 2	7	ne. w.	R. D. Lee. E. K. Tarbox.
Snowshoe	. Flathead	: 4.500	3 15	59.6	+ 4.6	100	 5	30	19	60	1.60		0.85	··	4	18	3		w.	J. S. Riter. W. E. Milnor.
Upper Lake McDonald Woodville	dodo	3,200 6,376	3								2.40 2.84		1.72 0.74	0.0 0.0	3 13	6	12	12	aw.	F. F. Liebig. Anna Kinman.
	. Uinta		6	· 	. 	 	ļ		ļ				ļ	ļ 		ļ.,,	ļ			A. V. Call.
AltaBedford	do	5,900	iö			1	27	18	18	46	2.79		0.70	2.0	13	8	8	14	8W.	Mrs. Lucy Brown, C. G. Heiner,
Nenada			3	'			27	20	24	48	2.80		0.70	7.0	7	7	12	11	8.	U. S. Army.
Idaho.	Elko	1	5		· · · · · · · ·	79	1	21	30	39	0.93		0.48	0.0	3	12	8	10	80.	Moses Jones.
Albion	do		ļ. V	56.4		86	15		23	52 	1.24 0.86	+ 0.50	0.39 0.30	0.0	7 5	12 16	14 9	5	w. nw.	G. A. Asline. Wm. L. Eames.
Bear ValleyBlackfoot	. Bingham	4,503	13	58. 1	+ 0.5	85	25	23 29	22 24	49	1.70	+ 1.18	0.60	T.	Ϊġ.	12	14	4		Francis Wallis. E. A. Dowd.
Blanche Bogus Creek	. Boise	4,200		61.7		94	91	!. 		54	1.15		0.65	0.0					• • • • • • •	Solon A. Bray. F. P. Ingraham.
Bonanza	. Custer	2,770 6,600	24	63.1	+ 1.6	91	9	36	22	38 	0.51	+ 0.10	0.11	0.0		12	12 12	6	nw.	U. S. Weather Bureau. Mrs. Emma Walter.
Bonners Ferry Boulder Mine	. Boise	4.800	3	59. S 62. 5		97	<u>.</u> .	20 35	23 21†	42	1.41 2.50 1.52		0.81 0.65 0.72	0.0 1.0 0.0	94	14 11 25	16	3 3	sw.	W. H. Heideman. Patrick Moriarty.
Burke	LincolnShoshone	1 9 279	3 5	52.2 62.2		82	: 3 6† . 9	28 29	18t	44 50	3. 21 1. 17		1.70 0.40	T. 0.0	9	25 11 15	11 7	8	w. sw. e.	Dr. D. P. Albee. W. A. Hall. W. J. Boone.
Camas	Fremont	4.815	14.	56.0b 61.0		81 ^b 92		21b 26	22 21 22	52b 55	3. 27 0. 68		1. 02 0. 20	0.0	117		ļ		sw.	Ednah Faulkner. C. H. Shepherd.
Chesterfield	. Bannock	5, 424	13	55. 5	+0.7 + 4.3	87	17	19	23	51	1.83 3.30	+ 0.04 + 1.35	0.56 0.70	0.0	11 12	11 12	9	10		Chas I. West
Cœur d'Alene Culdesac	. Kootenai	2,157 1,520	17	60. 1 ⁻¹ 63. 6	+ 3.8	85 ^d	6 5†	34d 39	23 12†	41d 49	0.60 1.52	- 0.84	0.60	0.0	1 4	17	7			E. J. Hopkins. Jas. T. Scott. R. R. Richmond.
Dent	do	1,350	4 3		.	95 75	9 25†	36	24 18	46 45	3. 03 3. 00		0.72	0.0 T.	10	15 9	10	5 15	sw.	Emil Schuessler. Walter H. Durrant.
	do			51.8 65.0		72 95	25 9	24	23 22	44	0 45			0.0	8	19 19	9 4	7	8. W.	Geo. B. Edie. E. L. Marvin.
ForneyGarnet	Lemhi	2,575	13 10	52.6	+1.3 -0.6	87 95 0	28 16	34 20 42 1	22 30	53 45 f	3. 19	+ 2.18	0.50	0.5	13	10	6	14	sw.	E. P. Treloar. Mrs. Ines H. Davis.
Gilbert	Nez Perce	3,030	2	57.8		84 96	16 9	42 f 32 28 27 29# 35 19	23 22†	36 57	3.30 1.24		1.10 0.60	0.0	8	15 20	3	12 3	nw.	J. B. Loomis.
Grand Forks	Shoshone	3.000		52.9		89 92 - 97	7	27 29≉	16	60 51≉	3.42 0.98		1.30 0.40	0.0	11 5	15	ii	4	n. nw.	H. F. Kottkey. N. G. Massey.
Guffey Hailey	. Blaine	5,347	7	67.2 54.8		81	9† 15	35 19	22 21 22	46 48	0.62 1.61		0.23 0.90	0.0	8	21 11	13	6	w. sw.	N. G. Massey, F. N. Perry, U. S. Forest Service, N. W. Irsfield, J. M. Waterhouse,
Henry	. Owybee	2,752	4	51.6 63.8		78 90	15 2† 16	19 35	22 23†	49 45	2.61 1.08		0.66 0.60	0.0	12 3	9	15	6	w.	N. W. Irsfield. J. M. Waterhouse.
Idaho CityIdaho Falls	. Bingham	4.742	11 14	56.5	– 0.3	···· 81	25	25	22	50	2. 25 2. 78	+ 2.00	0.75 0.72	0.0	11 11	15 22	6	···	ne.	Dr. T. M. Bridges.
Indian Valley	. Bingham	6,500	ļ;	54.6		82 90	25	22	22	50	0.72 4.09		0.37 1,10	0.0	10	7	16	7	n.	W. E. Henke. Miss Martha A. Beam.
Kellogg Kooskia	. Idaho	1,261	5	57.4 63.6		99	6† 25	29 32	23 25	56 67	2.65 2.57		1.98 1.15	0.0	9	16 11	13	1 15	sw.	W. McM. Huff. U. S. Forest Service.
LakeLakeview	. Bonner	2,250	17 12	51.8 58.2	$^{+\ 2.6}_{+\ 2.1}$	74 84 80	25 28† 16	22 29 32 26 35 25	16 19†	40 43	1.75 1.55	+ 0.87 - 0.19	0.50	0.0	4	15	0	15	sw.	J. Sherwood. E. D. Faust.
Lardo	. Boise	5,050	5	52.5			9		18	42	3.55		0.65	T.	9	12	13	5		Mrs. Emma L. Brown. E. W. York.
Lewiston Little Camas	. Elmore	757 5,000 5,700	15 	65.5	+ 2.0	93		41		40 	1.43 2.52	+ 0.78	0.64 0.81	0.0 0.0	8	10 9	8 7	12 14	e. ₩.	U. S. Weather Bureau. Solon McCoy.
Lost River Lowry Mackay	. Owyhee		15 2 2		· • · • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·														B. B. Harger. W. D. Winter.
MeadowsMilner	. Washington	3,950	7 6	54.4 55.8 59.2	· · · · · · · · ·	77 87	16 9 0+	26 20	22 22	39 55 46	2.70 1.40 0.06		0.65 0.37 0.03	0.0 0.0 0.0	10 3	17 11 20	13	6 6 2	nw.	U. S. Forest Service. Chas. A. Hackney. R. A. Hanson.
Moscow Mountainhome	. Latah	2,748	17	60.2	+ 2.9	88 89 94	9† 17 16	20 30 34 25 26 29*	22 22 22 22	45 55	1.54 0.62	+ 0.25	0.50	0.0	8 4	16 14	8 5 9	9 7	w. e.	University of Idaho. Mrs. Ellen Marion.
Murtaugh	. Twin Falls		3	58.4	· · · · · · · · ·	՝ 86∿	16	26 26	23 23 22	52 ⁺ 41*	1.36 2.65	:::::::	0.60 1.20	0.0	4 5	15 20	13	10	nw. w.	J. E. Steinour. P. W. Mitchell.
Oakley Orofino	. Casia	4, 191	17 5	58.1 62.2	— i.i	82 85 96	10† ; 1	30 33	22 23	47 47	2.05 2.05 3.37	+ 1.27	0.65	0.0	8	13 15	15 11	2 4	n.	John Adams. Geo. Alteneder.
Payette	. Canyon	2, 159	16	62.3	+ 0.4	94 79	28	27 19	222	54 47	0. 99 2. 70	+ 0.43	0.46	0.0	7	12	10	8	s. sw.	E. F. Allen. Arthur P. Say.
PiersonPiessant Valley	. Custer	7,000		62.4		99		26	18	51	2.02 0.27			0.0	5 4	16 21	0	14	se.	David P. Clarke. C. E. Friedrich.
Pocatello	Bannock	4, 483	เเ	59.4	+ 1.3	83	25 25	30	22	35	2.47	+ 1.59	0.57	0.0	10	10	12	8	5e.	U. S. Weather Bureau.

Table 1.—Climatological data for September, 1909. District No. 12—Continued.

	TABLE	- I.—(Cum	atologi ———	cal date	i jor i	Sept	emoer	, 19	09.	D18	rict No	. 12— -—	-Con	unu	ed.				·
			yrs.	Temp	erature,	in deg	grees	Fahre	nheit	:. j	Preci	pitation	, in inc	hes.	days,		Sky.		ion.	
Stations.	Counties.	Elevation, feet.	Length of record,	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmeited.	Number of rainy da	Number of clear days.	Number of part'	Number of cloudy days.	Prevailing wind direction.	Observers.
Huntaville Irene Mount Kennewick Kettle Falls Koans Kosmos La Center La Crosse Lake Clealum Lake Kachess Lake Keechelus Lake Keechelus Lake Keechelus Lateide Lester Lone Tree Longmire Spring Lost Creek Lucerne Lyle (Pine Hill) McCumber's Ranch Mottinger Mount Pleasant Moxie North Head North Head	Canyon Bonner Boise Lincoln Kootenai Fremont Lemhi Twin Falls Boise Owyhee Lincoln Blaine Cassia Fremont Elmore Bingham Twin Falls Fremont Elmore Bingham Chasis Fremont Chehalis Skagit Chehalis Spokane Okanogan Lewis Spokane Okanogan Muateom Jefferson Kittitas Whitman Stevens Okanogan Island Lincoln Clumbia Mason Walla Walla Jefferson San Juan Kittitas Grant Clallam Yakima Snohomish Yakima Snohomish Adams Columbia Okanogan Benton Stevens Okanogan San Juan Kitchitat Clallam Yakima Snohomish Yakima Snohomish Adams Columbia Okanogan Benton Stevens Okanogan Benton Stevens Benton Lewis Clarke Whitman Kitchitat Chelan Kitchitat Chelan Kitchitat Chelan Kitchitat Columbia Okanogan Benton Stevens Benton Lewis Clarke Whitman Kitchitat King Chealis Pierce Okelan Kilchitat King Chealis Pierce Okelogan Klickitat Yakima Benton Skamania Yakima Benton Skamania	5. 396 2. 425 1. 665 3. 100 4. 204 2. 263 5. 000 6. 200 6.	100 117 3 13 5 4 2 2 3 13 5 5 2 2 2 2 2 2 14 112 12 16 16 13 10 20 9 9 9 13 1 14 12 16 6 15 15 15 15 15 15 15 15 15 15 16 17 10 10 10 10 10 10 10 10 10 10 10 10 10	55. 1 55. 6 56. 2 60. 3 59. 1 56. 9 59. 8 50. 5 55. 8 64. 5 62. 4 57. 1 59. 4 57. 1 59. 4 57. 1 55. 7 59. 4 57. 1 56. 5 62. 6 62. 6 63. 8 60. 8 60. 8 60. 9 60. 9 60	+ 2.3 + 1.7 + 2.0 + 0.1 + 0.1 - 0.7 + 1.8 + 1.4 - 1.8 + 5.1 + 3.0 + 3.2 + 2.7 + 3.5 + 4.1 - 0.6 + 2.4 + 1.4 + 1.4	82 82 82 83 84 90 85 85 87 87 87 87 92 88 88 88 91 92 81 93 85 94 95 95 97 97 97 97 97 97 97 98 98 98 98 98 98 98 98 98 98 98 98 98	25 25 16 25 1 1 25 15 1 16 25 15 1 16 25 15 1 16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	322 322 323 30 30 30 26 30 27 20 222 222 222 223 223 233 243 344 255 299 313 388 383 383 393 393 394 413 324 413 324 413 324 414 324 417 324 417 324 417 324 417 324 417 324 417 324 417 324 417 324 417 417 417 417 417 417 417 41	221 18 23 23 18 1 22 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 23	249 488 48 49 47 41 39 447 47 41 39 447 47 47 47 47 47 47 47 47 4	3. 69 9 3. 59 0 1. 27 1. 54 3. 1. 85 1. 37 2. 1. 56 2. 49 1. 1. 54 4. 2. 1. 56 2. 75 2. 0. 66 4. 1. 1. 56 0. 0. 30 0. 2. 49 1. 1. 56 0. 50 0. 2. 38 1. 30 0. 40 0. 60 0. 30 0. 40 0. 50 0. 30 0. 40 0. 50 0. 30 0. 40 0. 50 0.	# 1.10 - 0.67 + 0.61 + 2.40 - 3.47 - 0.63 - 0.63 - 0.20 - 1.37 - 1.71 - 0.72 - 1.20 + 0.47 - 0.63 - 0.82 + 0.49 - 0.47 - 0.63 - 0.63 - 1.71 - 0.72 - 1.20 - 1.20 - 1.20 - 1.37 - 0.63 - 0.63 - 0.63 - 1.20 - 1.20 - 1.20 - 1.20 - 1.20 - 1.20 - 1.20 - 0.62 - 0.63 - 0.63 - 0.63 - 0.63 - 0.63 - 0.63 - 0.63 - 0.63 - 0.63 - 0.64 - 0.65 - 0.65	1. 52 0. 68 0. 85 0. 85 0. 86 0. 85 0. 86 0. 85 0. 86 0. 85 0. 86 0. 85 0. 86 0. 85 0. 86 0. 85 0. 86 0. 87	64 0.00 0.	1014655696 111471351131195557911 5 70968867616671154655 236555 32 3955310444 7188777778834431 3 5 10499	14 14 10 23 314 20 15 15 15 15 15 15 15 15 15 15 15 15 15	1612 17662 1766 22 94412 121510 8 23 0 3 9 8 8 3 3 3 114 8 8 3 9 8 6 6 14 16 12 4 16 12 4	0 8 8 6 9 4 4 13 8 7 7 6 0 8 8 7 12 6 10 12 6 5 5 5 11 6 3 9 10 15 16 5 5	SW. Ine. W. SW. W. SW. SW. W. SW. SW. SW. SW. S	Peter F. Wrensted. Stuart Lee. N. S. Dils. H. A. French. Walter L. Cole. Will Parry. J. S. Turnbull. Geo. H. A. Harris. E. K. Abbott. Arch M. Gilbert. Clifford M. Gardner. O. A. Petitt. A. O. Treeman. W. W. Leek. T. B. Jones. Geo. F. Webb. E. A. Wilmot. Mrs. W. A. Edwards. Clyde C. Anderson. A. M. Slatery. U. S. Weather Bureau. Wm. H. Warfield. Chas. L. Dingler. C. Weatherwax. Douglass Allmond. Robt. M. White. Sanford B. Mayhew. G. A. Ruring. U. S. Navy Yard. Geo. Landsburg. I. S. Turner. G. A. Fellows. Mrs. J. S. Myers. Geo. Gibbs. Alfred Ritchie. J. A. Balmer. W. H. James. W. L. Sax. Wm. Baines. W. T. Howard. Otto Wollweber. W. H. Head. W. W. Hendron. Walter O. Eckert. T. Z. Andrews. Emery J. Finch. Benj. E. Harrison. R. Lee Barnes. D. Chaffee. C. W. Palmer. Dr. G. A. Landes. C. M. Mackintosh. John W. Anderson. Rilektat Abstract Co. C. H. Cleaver. Dr. G. A. Landes. C. W. Palmer. Dr. G. A. Landes. C. W. Palmer. Dr. G. A. Landes. C. W. Palmer. Dr. A. E. Baldwin. Dr. F. S. Hedger. Hon. J. A. Ulsh. Joseph Brothers. M. E. Schreck. U. S. Reclamation Service. Do. W. H. Van Meter. L. S. Strout. W. W. Clabaugh. U. S. A. Eagineers Corps. U. S. Forest Service. P. H. Leese. Barbara Schearer. Thomas J. Whitcomb. Mrs. Mary McCumber. G. H. Mottinger. F. M. Grout. H. B. Scudder. U. S. Westher Bureau. A. L. Hager.
North Yakima Nutland Odessa Olgs Olympia Oroville Peola Pomeroy Port Crescent Port Townsend Pullman Quiniault Republic	Klickitat Lincoln San Juan Thurston Okanogan do Garfield do Challam Jefferson Whitman	1,076 50 200 200 1,500 1,500 2,50 300 2,628	6 19	63. 5 67. 0 62. 2 55. 4 58. 4 65. 6 63. 0 51. 4 57. 0 60. 9 58. 4	- 0.2 + 1.8 + 1.1 - 1.1 - 0.4 + 2.3 + 3.0	96 95 95 78 91 98 91 78 80 88 89	1 5 5 1 4 5 4 5 9† 4	35 39 32 40 36 32 40 31 42 29 38 27	30 18 29† 23† 23 22 17† 26 27 20 27 18†	26 43 49 49 34 30 43 37	0. 74 0. 29 0. 14 1. 59 1. 14 0. 39 1. 60 1. 33 1. 00 0. 68 1. 09 0. 85 3. 97 1. 24	- 0.81 - 1.73 - 0.14 - 1.62 - 0.11 - 0.53 + 0.05	$0.30 \\ 1.52$	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 5 1 7 5 4 5 10 1 8 6 4 13 5	8 14 15 18 19 13 20 10 17 15 13	14 13 10 8 5 9 0 13 7 9	8 3 5 4 6 8 10 7 10 8 8 6	nw. sw. nw. s. s. nw. w. nw. w. nw. w.	A. D. Hager. J. R. Shepard. Vm. U. Neeley. Cecil S. Willis. M. O'Conner. Wm. G. Tait. A. M. Dufield. Samuel Gruell, sr. Peter McClung. U. S. Weather Bureau. Frank Plummer. State Agricultural Col. A. V. Higley. Geo. B. Stocking. James W. Nicol.

Tarle 1.—Climatological data for September, 1909. District No. 12—Continued.

	TARLE	10	í	wwy ic		, 101 1.	oc poc		, 100	o. 	Disti	rict No	. 12	-011		leu.			l	•
			K	Tem	perature 	, in de	gтеев	Fahr	en hei	t. 	Prec	ipitatio:	o, in in	ches.	days e.		Sky.		lon.	
Stations.	Counties.	Elevation, feet.	Length of record,	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy da	Number of clear days.	Number of part- ly cloudy days.	cloudy days.	Prevailing wind direction.	Observers.
Washington—Cont'd.	Adams	1,825	10								0.20	- 0.34	0.20	0.0	1					Agent, No. Pac. Ry.
Rock Lake	Whitmando.	1,750	3 17	62.0h 60.6	+ 4.5	91 ¹ 88	5	28 ⁶ 36	18 23	46 38	0.22	- 1.00	0. 12	0.0		17b	4b 5	7b	sw.	P. M. Ramsey. Hans Mumm.
Rosalia	Yakima	2,870	1					47	.		0.28		0.10	0.0	3 5 7	14 *	3 .	8- 14	w.	John Russell.
Seattle (2)	Kingdo		18	60. 1 60. 4	+ 2.2	84 85	5	45	18†	37 33	1.10 1.44	- 0.83	0.41	0.0	9	11 17	5	8	n. s.	U. S. Weather Bureau. Univ. of Washington.
Sedro-Wooley	SkagitKlickitat	1.240	12 2		+ 0.2	89 95	5 6	35 39	30	42 39	2.53 0.19	- 1.00	0.80	0.0	9 3 9	12 16	10	8	sw.	H. L. Devin. C. E. Comstock.
Skagit Power Dam Snohomish			15	60.0 59.2	+ 2.0	92 89	2† 5	42 38 37	16† 15†	42 47	4.80 1.26	- 1.92	1.90 0.35	0.0	9 8	12 13	0 6	18 11	nw.	Skagit Power Co. Irving B. Vestal.
Snoqualmie Falls Snyder's Ranch	King	667	10	59.0	+ 1.6	89	4†	37	18	48	5. 25 0. 72	+ 2.14	1.47 0.38	0.0	9	14 18		16 2	w.	O. N. Wiswell. George M. Snyder.
South Bend	Pacific	16	14				16		23	30.			ļ. .				! .			John L. Stevens.
SpokaneStehekin	Spokane Chelan	1.100	28	61.4	+ 2.6	88		36		39 	0.18	— 0.83	0.07	0.0	6 	10	10	10 	sw.	U. S. Weather Bureau. M. E. Field.
Stokes Ranch	Okanogan Stevens	2,670 2,700	····	<u> </u> : • : : :	:::	. .					<u> </u>	[:::: <u>:</u>			Amos Stokes. Mrs. Jennie D. McAbee.
SumnerSunnyside	Pierce	77	1 1	58. 6 63. 2	+ 2.6	90 96	6	34 31	18	49 50	1. 12 0. 41		0.38	0.0 0.0	8 4	15 20	4 4	11 6	n. w.	H. E. Thompson. U. S. Reclamation Service
Tacoma	Pierce	213	23 24	59. 7 53. 0	+ 2.1	96 86 68	23	42 44	18 18 26	50 33 21	0.90 2.03	- 1.57 - 4.11	0.33	0.0	9	11	9	10	n.	U. S. Weather Bureau. Do
Tatoosh Island	ClallamYakima	2,000		60.6	. i	92	1	34	21	38	0.82	. 	0.41	0.0	9 5	21	1	13 8	s. 	U.S. Reclamation Service
Touchet Ridge	Walla Walla Columbia	556 2,500	2			94	5†	.	ļ .	54	0.36 1.51		0.42	0.0	3 5	14	5 4	11 9	sw. sw.	D. W. Dorrance. R. H. King.
Trinidad Twisp	Douglas Okanogan		5 6	68.4		99	1	39	30	37	0.36		0.32	0.0	3	20	7	3	nw.	J. C. Wheeler. Wm. G. Hughes.
Tyee	Chelan	2,000	34	62.4		94	5	37	18	43	1.38	- 0.36	0.62 0.36	0.0	4	11 15	15 8	4	w. nw.	Elias McCres.
Vancouver Vashon Island	King	110	20 !	57.9	$\begin{array}{c c} + 1.5 \\ + 0.6 \end{array}$	79	4†	43	22†	30	0.64	- 1.70	0.19	0.0	6	14	9	7	n.	A. A. Quarnberg. Miss Gertrude McClintool
Wahluke	Grant	4.000	5			99*	'	32*		53*	0.08 1.88		0.08 1.02	0.0	1 5	23 6	2 20	5 4 7	8.	F. C. Koppen. Geo. A. Wallace.
Walla Walla	Walla Walla Douglas		25 19	66.1 60.5 ^b	+ 0.7 + 4.2 + 3.4	93 95⊩	16 6	41 29 հ	23 20	40 47ь	0. 61 0. 50	- 0.32 - 0.02	0.26 0.50	0.0	8	11 19•	12 3e	7 3•	g. W.	U. S. Weather Bureau. O: R. Hopewell.
Wenatchee (near) West Branch	ChelanSpokane	1,169	iŏ	63. 1	+ 3.4	92	ı i	39		32	0.80	- 0.20	0.60	0.0	5	20	6	4	w.	George Pitcher. Martin A. Murray.
Wilbur	Lincoln	2,203	10	58. 4 61. 7	+ 1.9	92 93ª	i	23 35ª	22 23	52 42a	0.47	- 0.29	0.45	0.0	2	17	7 9a	6 6*	BW.	Rollin J. Reeves.
YaleZindel	Cowlitz		7	65.2	- 3.8	98	6 13	41	20	48	0.89	_ 0. io	0.45	0.0 0.0	3	14° 5		19	sw. n.	L. F. Williams. M. W. Zindel.
Oregon. Albany	Ling	214	33	61.4	+ 1.6	95	4	40	17†	42	0.93	- 0.91	0.40	0.0	7	17	5	8	n.	F. M. French.
AshlandAstoria	Jackson	1,940	25 47	64.2 ° 62.0 °	+1.6 + 2.7 + 2.1	95 89	15 28	40 48	18† 16†	51 33	0.72 0.68	- 3.44 - 3.48	0.33 0.65	0.0	.3	7 19=	15 1=	8 9.	nw. nw.	F. H. Carter. C. W. Lamar.
Baker City	BakerTillamook	3.466	20 13	58. 0 56. 4	+ 1.3	86 86	16 23	31	22	38 51	1.59 2.50	- 3.48 + 0.79 - 2.28	1.01 0.58	0.0	10	12 17	8	9	s. nw.	U. S. Weather Bureau. J. O. Bozarth.
Bay City Birch Creek	Wheeler	2,900	!	61.8		91	16	35 34	22 18	40	0.36	!	0.11	0.0	6	10	16	4	w.	F. S. Matteson
Black ButteBlalock	LaneGilliam	237	10	57. 8 69. 9	- 0.1 + 2.0 + 2.4	90 98	4 5†	33 44	18†	41 36	1.79 0.30	- 0. 25 - 0. 15	0.75 0.20	0.0	6 3 5	18 12	7 7	5 11	ne. w.	Geo. W. Long.
Buckhorn Farm Cascade Locks	Josephine		10	62. 6 62. 3	+2.4 + 1.5	99 90	15 15	36 40	18	57 40	1.55 2.34	- 0.26 - 0.15 + 0.37 - 1.24	0.73 1.13	0.0	10	20 18	8	8	n. w.	James A. Putman. Geo. W. Long. E. F. Meisser. Val W. Tomkins.
Caradero	Clackamas		i	62.6		93	4	38	18	47	2. 24		0.73	0.0	9	17	1	12	е.	A. Drill. C. H. Williams.
Corvallis	BentonGrant	600	7	61.5 62.0	$ \begin{array}{r} + 1.4 \\ + 2.9 \\ + 0.1 \\ + 1.2 \end{array} $	88 92	6 16	40 27	92	40 53	1.16 0.79	- 0.23 + 0.02	0.60 0.25	0.0	7	21 17	5 11	4 2	w. nw.	Oregon Arrio College
Dayville	Columbia	600	7	58.8	+ 0.1	89 96	4	38	i 22†:	36 57	1.26	l. .	0.44	0.0	8	11	9	10	nw.	Dr. J. Campbell-Martin Jos. Hackenberg. Ira Wimberly.
DrainEeho	Douglas Umatilla	625	6 5	62. 4 65. 6	+ 1.2	95 95	4 3† 6†	38 35 33 34	23	47	1.08 0.30	- 0.18	0.36	0.0	4	16 15 c 21	8 4°	6 8°	nw.	R. B. Stanfield.
Ella Eugene	Morrow	830 449	10	67. 1 61. 9	+ 2.1	02	4 :	34 37	23 18†	47 46 67	0.37 1.11	- 0.09 - 0.54	0. 12 0. 35	0.0	7 7 8 5 4 7 5 6	19	6	3 11	sw. n.	R. B. Stanfield. C. F. Troedson. A. W. Jackson.
Fairview	CoosPolk	142 355	11 11	55. 2	- 3.9	105	15	32	16	67	1.67	- 0.47	0.56	0.0	6	19	2	9	hw.	Wm. Bettys.
Forest Grove	Washington Douglas	220	19 19	50 4	+ 0.6	100	15	40	29	42	0.91 1.07	- 0.63 - 1.75	0.42 0.50	0.0	5 4 3	10	6	5		Pacific University. Hon. J. S. Gray. B. J. Simpson.
Glendale	do	1,441	5	63.44	+ 2.3	97d	6	32d	22	52d	0.70	- 2. 15	0.40	0.0	3	19 23 16	1 7	6	n.	B. J. Simpson.
Glenora	Tillamook	40	17 6	59. 6 56. 4		95 86	5 14	41	27	47 42	3.48 1.71	- 0.09	1.31 0.60	0.0	8 5 7	20	0	7 10	sw.	Mrs. Jennie Recher. C. Dewey. L. M. Ford.
GraniteGrants Pass	Grant	956	20	54.0 63.4	+ 3.5 + 1.9 + 0.8	100 -	4	32 41 20 32 29 35 38 34 47 37	18 27 18 22 13 18	42 55 56 37	1.51 1.03	- 0.83 - 0.24	0.50 0.43	0.0	5	5 19	15 3	10 8	nw.	John R. Paddook
Grass Valley	ShermanLane	250	9	55. 6 60. 4	$+1.9 \\ +0.8$	89 89	5	29 35	13 18	47	0. 45 1. 89	- 0.75	0.39	0.0 0.0	7	20 19		5 11	sw. sw.	Agent, O. Ry. & N. Co. Wm. Wheeler.
Headworks	Clackamas	719	10 20	09.0	+ 2.2	90 3 93 a	4	38 34 •	18	40 46*	3.41 0.39	- 0.03 - 0.70	0.93 0.15	0.0	9	16 14	6 4	8 11	sw.	Portland Water Works
Hermiston	Umatilla	450	4	64. 8 62. 0		95 95	6	33	23	49	0.18		0.11	0.0	2 4	13	13	4	sw.	Geo. Whiteis. C. W. Kellogg. H. L. Hasbrouck. J. M. Day.
Hood River	Hood River Baker	2.110	18 7	66.4	+ 2.7 + 1.7 + 2.4 + 2.4	96	3	47	211	48 38	0.45 1.20 1.04	- 1.08 + 0.92 + 0.14 + 0.70	0. 25 0. 50	0.0	4	24 3	14	13	w. 	J. M. Day.
Jacksonville La Grande Madras	Jackson Union	2,784	20 21	64. 4 61. 2	+ 2.4 + 2.4	100 92	15 16	37 30	22	48 50	1.04 1.77	+ 0.14 + 0.70	0.56 0.50	0.0	8	19 12	5 8	6 10	nw.	E. Britt. W. A. Worstell. D. P. Rea.
Madras. Marshfield	Crook	2,150		57.8	- 0.2	93	15	<u>4</u> 0	· .	48							-	•••		Dr. K. Mingus.
McKensie Bridge McMinnville	LaneYamhill	1,400	7 21	58. 2 62. 1	- 0.4	96 97	4† 5	27 35	18	58 51	3.57 1.48	+ 1.18	0.87 0.72	0.0	11 5	15 15	1 7	14 8	sw. n.	Geo. Frissell. C. J. McKee. J. T. Chandler.
Mikkalo	Gilliam	1,600	5	63. 4ª		93ª	6	27 35 32* 36 42 41	18	470	0.45		0.14	0.0	7	16ª	10-	3*	w.	J. T. Chandler.
Miramonte Farm	Clackamas Benton	350	19 12	61. 6 62. 6	$\begin{array}{c} + 2.3 \\ + 1.9 \\ + 2.5 \end{array}$	93 92	5 4	42	22 22 22	40 39	1.23 0.87	- 0.98 - 0.78 + 0.54	0.60	0.0	6	17 13	8 5	5 12	n. nw.	G. M. Muecke. John H. Starr.
Mount Angel	Marion	1,550	23 4	63.8 59.8	+ 2.5	90 92	4† 1	41 35 40	21	36 39	1.49 3.41	+ 0.54	0.72 1.65	0.0 0.0	8	17 17	4 7	9 6	s. w.	Dr. U. F. Fisher. Raymond Markley
Newport Pendleton	LincolnUmatilla	80	19 19	56. 6 65. 0	+ 0.6 + 4.0	83 96	23 5†	40 33	21	33 53	1.32 0.84	- 1.46 - 0.05	0.33 0.17	0.0	6	12 13	10 14	8	nw. w.	Wm. Matthews. H. F. Johnson.
Pilot Rock	do	1,872	14	65. 4 53. 2	- 1.9	95 87	16 8	33 37 31	18	42	0.77	+ 1.12	0. 26 2. 05	0.0 T.	8 9	15 15	12 5	3 10	nw.	John P. McManus. O. C. Yocum.
Portland	Multnomah	57	40	63.3	+ 2.1	93	31	41	18	31	0. 95	- 0.77	0.38	0.0	8	14	9	7	sw. nw.	U.S. Weather Bureau
Prineville	Curry	3,000	12		- 0.3	87	15	27		50	1.54	+ 0.96	0.84	0.0	··· <u>·</u>	18	3	9	w.	Willis T. White. C. I. Winnek.
Prospect	Jackson	2,750	4	60. 2 53. 9		96 87	3 16	28 26	18 21	57 59	2.00 1.67		0.80 0.45	0.0 0.0	7 3	13 13	12 14	5	w.	E. F. Graham.
RiversideRoseburg	Malheur	3,000		62. 8 62. 6		95 91	4 5	38 41	ļ .	51 37	0.71	- 0.34		0.0	 6 5	18	· iö ·	·	nw.	Craig Thom. Mrs. Leah Fairman. U. S. Weather Bureau.
	Marion	120			1 7 2	29	ائا	-		1		- 0.88	0.56	0.0		15		น์ เ	nw.	M. P. Baldwin.

TABLE 1.—Climatological data for Systember 1933. District No. 12—Continued

	LABLE	10	um	uotogic	ai ana	jor is	зрце	moer,	19)).	Dist	rict No.	. 12—	Cont	ınu	ea.				
			yrs.	Tem	perature	, in de	gree	s Fahr	enhe	it.	Prec	ipitation	, in i	ches.	days,		Sky.		tlon.	
Stations.	Counties.	Elevation, feet.	Length of record,	Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy	Number of clear days.	Number of part- ly cloudy days.	Number of cloudy days.	Prevailing wind	Observers.
Oregon—Cont'd.	Jackson	4, 115	1	58.8		88	15	33	30	37	1.02		0. 59	0.0	5	19	7	4	e.	Louise F. Bates.
tafford 'he Dalles 'oledo	Clackamas Wasco Lincoln	112	13 34 19	64. 8 62. 6	+ 3.3 + 4.2	93	5	38	23 22	40 54	1.05	+ 0.47 - 0.78	0.63	0.0	5	21	2	 7 2	w.	J. P. Gage. S. L. Brooks. C. B. Crosno.
matillaale	Umatilla	340 2,450	19	67. 8 62. 8	$\begin{array}{c c} & 7 & 4.2 \\ & 4.3 \\ & 4.3 \end{array}$	93 95 97 95 94	15 6† 9	38 35 39 25 36 25 31	18† 22† 18	49 57 44	0.11	- 0.43	0.11 0.22	0.0 0.0 0.0 0.0 0.0 0.0	1 8	21 23 19 19 10	9	7 2	w. e.	Mrs. H. T. Duncan. H. P. Osburn.
allace Orchard allowa armspring	Polk	1,600	6 7	40 7		89 95	9 15	25 31	18 18	53 45	1.23		0,41	0.0	9 5	. 7 . 15	6 11	17 4	nw.	Chas. A. Park. L. J. Coverstone. Claude C. Covey.
VestonVilliams	Umatilla Josephine		19 17	62.6	+ 3.2	100	5	32	18	60	1. 19	+ 0.35	0.35	'	1	16	7	7	n.	M. A. Baker. J. M. John.

<sup>Precipitation included in that of the next measurement.
Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
Also on other dates.
Separate dates of falls not recorded.
Data are from standard instruments not supplied by the U. S. Weather Bureau.
Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
Estimated by observer.
Precipitation for the 24 hours ending on the morning when it is measured.
Precipitation is less than 0.01 inch rain or melted snow.
b, e, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.</sup>

Table 2.—Daily precipitation for September, 1909. District No. 12, Columbia Valley.

	I AB				~9 <u>I</u>	J1 00	-PW	-	jt	or Se	, prec	.1600	, 1				of		12, nth.			, ece	, uu	wy.									
Stations.	River basins.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total.
Montana.		-	.81 .25 .47 0 .28		İ	<u> </u> 		<u> </u>	İ	İ	1		 	Ϊ										<u> </u>			!	<u></u> -		<u> </u>		 	
Ansconds	Missoulado	. 20	.81	. 60 1. 29	.04		T. T.	. 05			. 19	i ko						T.			33	T.				ļ			- -	. 02	. 21	<u></u>	2.3
Columbia Falls Como	TO 1 . 1	70	47	1 19							. 28		ıi.								.58	.87		·	ļ	ļ				. 66		5	3.81 3.47 2.20
Darby	Bitter Root			. 85	. 10	.03 		 			. 13	. 70		:							.32				į	ļ::::			T.	.01 .42		: ::::	2.52
Dayton East Anaconda	Flathead	44	. 4 .37	. is	Ť.	Ť.	Ť.	.08		·	. 55	iio	! !					т.		т.		T.	• • • •	l	¦			• • • •	••••		10	á ^l	1.90
Fortine Hamilton	Flathead		. T.	. 04		ļ	- -			ļ	. 15	.04	· · ·					.07		Ť.	.03	.04	••••		ļ					.60	T.		0.97
Hat Creek	Missoula	50	28	2.00		ļ::::		.30			.50	1. 19	.34	ļ	::::			∵iċ		. 14	.11	.13		,			T.			T.			1.99 5.59
Jocko Kalispell	Linfoeno			· • • •		!								· · · · ·			· • • • •			•••:	· • : :	- <u></u>	• • • •								Ö	i	1.2
Lost Creek	Missouladododododododo		3 35		ļ	ļ	· · · ·		ļ	.	·		1		ļ	• • • •		· · •••			··		·т·				j		••••	20			
Ophir	do	.00	6 .10	1.20							.14	1.80	T.]:							.21		· <u>.</u>							.38		ļ	2.3 2.8 1.8
Philipsburg	do	17	7 .14	.56		т.		Ť.		: ::::	1.	1.36	.18	s ::::	····			.06 T.	T.	т.	. 45	.15	т.					• • • •		.33	ic	j	1.8 2.9
Pipestone Pass Platna	Columbia	20		· · · ·		· · · ·				· ····	··	21		· · · · ·	····	'		• • • •		••••!			• • • •	ļ	ļ					40	ļ		2. 1
Plains Pleasant Valley	Kootenai	ļ	. 20	T.							.ic	114	T.	T.				••••	į		27	. 03			ļ			::::		43			1.13
Polson St. Ignatius	Flatheaddo	∵i:	90 3 .18	.17 .50	Ť.						.03	.33	∵ii	i ::::	· · · · ·		T.		!	T.	22	.08	is	.01		i	i		· · · ·	. 56	. 14	ij	2.3 1.9
St. Regis Saltess	Missoula	. 24	4 . 44	. 04	••••	 -				·}		.04		· · · · ·	· • • •			••••		• • • •	. 46		••••										1.2 2.7
Snowshoe	dodo Columbia Kootenai Flathead do Missoulado Kootenai do	ļ		 		ļ		 		ļ		ļ		 :			[<u> </u>]				 				<u></u>	::		1.6
Upper Lake McDonald	Flathead		::::	::::		<u>.</u>	::::			3	.31	.37		::::	::::		::::				.30	.05	• • • • •					::::	. 85	. 25	1.72	2	2,4
Woodville	Missoula	.25	3 .45	. 11		····	····	. 15	.03	3	.17	.74	.42											ļ	¦••••	····	····	. 03	- · · ·	.04	. 36	ή	2.8
Afton	Snake			ږ!		··.;		٠.,.		5	! !*****			J	 	 .	<u> </u>		·			;		l		 -		ا <u>. ب</u>		اير	<u></u>	J	·*
Alta Bedfor <u>d</u>	dododododo						.05							'		:						::::			 		. 01	. 05		.10	. 55	<u> </u>	2.79
Nevada.				· · · ·		ļ			1		1.10	.30	.70	ļ	· · · ·	····	····			••••		····	• • • •	· · · ·	 -	ļ		••••	••••		. 50	į	2.80
San Jacinto	Snake			Т.		T.	.48		ļ	.	 .	ļ	. 	ļ			ļ [.]		ļ ļ			ļ. .			 .				.16	T.		J I	0. 9:
Idaho. Albion	Snakedodododo	. 39	.07	. 10		.20			ļ		ļ	ĺ		J	. .				<u> </u>					ļ	ļ	 .	.04			. 39	. 05		1.2
AlmoBlackfoot	do	. 20	.30 ne	·		. 25	T.		·			T.	··				••••			·	••••	· 4: ·					.01		.10				0.8
Blanche	do	l			l '	50 ء '		1 1 .						1		1 1														::::			1.1
Bogus Creek	Payette Boise	 .ii	i	Ť.	· · · ·			iò			т. Т.	Ť.			••••		••••	••••		т.	·;;.	• • • •	• • • •	••••	т.		. 02	т.			.07		0.5
BonansaBonners Ferry	Salmon	l				l																т.				ļ		إ					1.4
Boulder Mine	Columbia Boise	.40	. i2	. 13	.09		. 57	.05													.05	1.	• • • • •						. 14	. 65	.44	<u> '</u>	2.50
Buhl Burke	Snake	. 12	. 14	. 54													• • • • • •	04		••••		16	• • • •			••••	••••	••••	.72	i. 70	14		2.50 1.52 3.2
Caldwell	Boise	. 16	3 .30	.01]		• • • • • • • • • • • • • • • • • • • •					.40	. 05	. 25		1.17
Camas	Lost River Region	1.02	20.20	T.	.50	. 53	. 05	.09) 	.06	.16	.18	ļ						::::	· · · ·	ļ: : :	• • • • • • • •		• • • •		.09	::::			.39	j	3.27
Cambridge Chesterfield	Snakedo	.U9	T.	T.		. 15	.04 T.	. 20	i		T.	.05	io				••••	• • • •	· · · · · '	••••		r.	• • • •	····	• • • •	: 	56	••••	. 12	$.12 \\ .23$.11	L	0.68 1.83
Clawson	do	.70	.13	. 10	í l	.02		.42			. 25	.20	.66													ļ	.10	. 12		10	. 50	5!	3.30
Culdesac	Columbia Clearwater	l		i	l l			•	i		.30							 			.46								ii	. 60	.35	5	1.5
Dent Drigge	do	. 60	7 . 15 0 . 15 0 . 42	 	.03	iż	••••	62			.12	.72			• • • •	••••				••••	.41	Ť.	••••		····	т	••••	••••	.40	.63 .50	. 53	3,	3.0 3.0
Edie Emmett	Lost River Region Payette	2.10	42	T.	.20	. 12	. 16	.08			į	.01													ļ					.38			3.4
Forney	Salmon	. 50)¦		. 20	25	. 25	.40	.14		∵iċ	.45	.10			::::			::::		∵iò	. 20	• • • • •					::::	• • • •	.40	. 10)	1.7 3.1
Gilbert	Clearwater	1.10	60	1.		• • • • •	• • • •	• • • •	• • •		الكئما	1.10		1		l l		т.		T	านก	. 10		1		1			90	.40	. 50) 	3.3
Glenns Ferry Grand Forks Grandview.	ColumbiaSnake	1.10	ມ . ບຽ		' l			.08			.10							. 10			. 95	. 29	. 03		ļ				.09	1.30	.30)	3.4
Grimes Pass	Boise	.40 .36		. 04		T.	.23	· · · ·	∴04	i ::::	. <u></u> .					::::						' l								.70	. 58	3	0.9
Guffey Hailey	Snake Wood-Malad	11.18	. 23 T.	.02		т. Т.	i	T. .21	.04	::::	Ť.	T.	· • • •		••••		••••		 	••••	T.	.02 T.	• • • •	••••	••••	••••	.01 T.	. 10	.16	.04	.03 T	3	0.6
Henry Hotspring	Snakedo	. 66	. 14			. 25		. 29			. 05	. 20	. 25						ļ			.02					.17	. 03		.29	.20	ų	2.6
Idaho City	Boise	. 35	1 .23 T. 3 .14 60 5 .75		Ť.	Ť.	T.	.40		т.			;····						T.	Ť.	• • • •	::::	. .				Ť.		. 10	.49	.20	5	2.2
idaho Falls Indian Valley	Snakedodo	.36	3	.11		. 72				т.		. 29	. 11					• • • •			• • • •		• • • •		· • • •	ļ ļ	. 05	. 26	T.	.28	.09	5 3 3 7 7 4 2 2	2.7
Irwin	do		l. 10	. 19	.2i						.30	03	. 80											į				••••		. 18	. 34	<u> </u>	4.0
Kooskia	Clearwater	.03	.02	.01 .30 .25	T.			.03			.02	1. 15	т.					т.	Τ.	Ť.	.50							• • • •		. 30	.22	<u>.</u>	2.5
ake	Snake	.50		. 10						Ť.	i5		: : : :		<u> </u>			• • • •		::::	 .50		• • • •	· • • • •			••••	• • • •		. 80	.50	j	$1.7 \\ 1.5$
andore	Snake Payette	г.	T.	. 60		. 33	. 02	- .	!. .		.41	. 55						T.		T.	. 33			ļ		ļ			.38	. 65	. 28	3	3.5
ewiston	Clearwater	Ţ.	T.	Т.	l						.48	. 16								Ť.	. i2	::::	 					∵ói	. 05	.60	.01	i	1.4
ittle Camas	Boise Lost River Region	T.	.28	••••	т.	.81	.08	.09			 	.07				• • • • •		• • • •		Т.	T.		• • • •		••••	т.	Т.	••••	.38	. 67	. 14		2.5
owry	Owyhee Lost River Region	20						·т				· · ·														10						::::	
Ceadows	Salmon	.28	.28 .36 .06 T. .07 .17 .05 .14 .23	.01			T.	.06	ļ: : : :			. 13						· • • ·	::::	::::	.08	T.	 	· · · ·		2	. <u>.</u>	::::	.13	T. .37	T. .21	5	1.4
filner	Snake	.01 T.	T.	 .07	02	.03	• • • •	• • • •	• • • •									Τ.	i	·;;:		05					T.	••••	T.	T. .50	T.	l	0.0
Countainhome Curtaugh	Snakedo		17	·т			, 15 T			ļ		Т.		ļ	ļ									••••		ļ	. 02		T.	. 28			0.6
Nes Perce	Clearwater	. 23	.14		::::											::::	1, 20	∵iš	::::¦		: . . .	:	 		·				::::	30	ļ	8 5 6 6 7 8 8 8 8 8 8 8 8 8 8 8 9 9 9 9 9 9 9 9	2.0
Dakley Drofino	Snake	. 65	.23	. 21	····	. 26		. 16				55								47	 .50							.05	.02	·45	.04	ا ا کا ا	2.0
Payette	Payette											T.	اا	ļ				• • • •	 .						ļ	ļ	Ť.	T.	.46	.30	, ŎĔ	<u></u>	0.9
Pebble	Payette Snake Snake Salmon Bolse Odo do Odo Columbia	.72	.15					• • • •	. 41		. <u></u>					::::				::::		:::: <u> </u>	::::				. 19	.00		1.00	. US	اً أَوْ	2.0
Pleasant Valley Pocatello	Boise	T.	3. 33	·т	<u>†</u>		••••	.02			T.	.07	ا آڻي			····		• • • •	••••	••••			• • • •	••••		·#·	.02	••••	.18	· · · · ·	.05	٠	0.2
Pocatello Nursery	do	1.52			. 18	.41		. 19	::::		. 03	. 17	ļ.ĭi	J							: : : :			• • • • • • • • • • • • • • • • • • • •		ļ. .	.08		.85		, į,	<u> </u>	3.6
PoplarPoplars	Boise	.68	3 .35	.09	. 24	. 24	.03	. 23			. 25	. 11		<u> </u> ::::		::::		• • • •			. .	<u> ::::</u>	• • • •				.03	.21 *	. 82	. 24	.20	j	3.5 1.6
Porthili Pyle Creek,	Columbia			;	₋	·	·				.31									• • • •	.24			¦					.06	.60	.00	<u></u>	1.2
Rupert	Snake	. 63	.08	.88	Ť.	.25	T. T.	.08 T.	<u>:</u>			<u> </u>		::::		::::	::::	т.	::::		<u>.</u>	Ť.	• • • •			ļ	.09	.02	:.oi	39	.0:	ź	2.3
Si. Maries	Columbia	١	.03		١١			٠٠٠٠ ا	٠	اا	.10	اا	'. .	٠ا	ا ا	اا	ا ا	T.	١١	۱۱	. 25	T.			١	١	اا		.33	. 82	. 03	٠الا	1.5

Table 2.—Daily precipitation for September, 1909. District No. 12—Continued.

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Idaho—Cont'd. alem	Snake	. 59	. 74	. 13	. 02	. 51	.20	. 19		,		. 24 .	•••	· · · !	.		ļ						ļ. 	' !	!. <u></u>	. 15	(. .	. 27	.14	l _i
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heep Hill	Boise	66	. 54	Öi.	T.	. 16	.41	. 24		'0	ı T.		:::					_:	.02	.01						Öi.	$\cdot 02$.33	.i.	;
lver City	Owyhee	.07	.06	T.	.04	.07	.51			0	1 .08		•••	• • • • • •			ļ. .	,	• • • • '					¦. • . • :	01		. 23	10	.08	3
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ntralia	Coast								; 1	ř. <u>.</u> 1	5				т.			. 05	. 36					. 22		Τ.	. 17	.03		
eney	Wood-Malad Snake Coast Puget Sound do do do do Coast Spokane Okanogan Puget Sound Coast Yakima Palouse Volumbia Okanogan Puget Sound	'	• • • •	· • · ·	·	• • • •		• • • •		T		<u> </u>		• • • • • •		.4:		••••	·			· · · · .	!				27		T.,	,
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Table 2.—Daily precipitation for September, 1909. District No. 12—Continued.

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Washington—Cont'd. Stokes Ranch. Sullivan Lake. Summer Sunnyside. Tacoma. Tacoma Island. Tiston. Touchet Touchet Ridge. Trinidad. Twisp. Tyee. Vancouver. Vashon Island Washuke. Walla Walls Wasterville West Branch Wilbur West Branch Wilbur Zindel Oregon.	do Pend Oreille			ij	• • •	! !- • - : :			' .	:			••••		¦				 	ł.:	ike.			. .:			.	١		[†]				[.]		
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Zandel Oregon. Albee. Albany. Ashland Astoria. Baker City. Bay City. Bear Creek. Bellfountain Bend. Birb Creek Bellfountain Bird Creek Bells Black Black Butte Blalock Blue Mount Sawmill Buckhorn Farm Butte Falls. Cableville	Willamette	• • • • •			· · · ·				• • • •	· • • ·		. 	. 12	· • • •		. 	. .		¦ 		. ' 		. 10	0.0	4		.08	.0	ß 3.0	0	1 . T	r.	. 40 . 22	. 20 .		0.93
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Blue Mount Sawmill	Umatilla Rogue River			 ::-:	. 12	 		: : :			:	::::		. 65						:::::	: ::::	Т.	. 51		6 		_ii	.4	ġ∵ġ	i	: : <u>*</u>	40	73	. 21		1. 55
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California Gulch Canyon City	Umatilla		30 .:	25 .	.08	.04		6		 			.35	. 25							· · • • ·	`	.0	3			[Ť.	::::	· · · · ·		04 .	.08	.30	::::	1. 20 0. 63
Cascade Locks	Columbia Willamette					<i></i>						;	. 26	.06				 		63 01	} l	. 10	1.1	7 .2	11 6		.05	.0	4 5.0	i	1:	14 . 50 .	. 34 . 81	. 14		2.34 2.84
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Fairview (2)	SnakeWillamette	• • • • • • • • • •	 			• • • •	• • •			 				. 22	 	. .		 					' 		28	T.	. 12	• • •	2	6	. T		. 56 	. 23	• • • • • • • • • • • • • • • • • • • •	1.67
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Fairview (1). Fairview (2). Fails City. Far Gen. Florence. Forest Grove. Gardiner. Glendale. Glendale. Glendale. Glendale. Grants Pass. Grants Pass. Grants Pass. Grants Pass. Happy Home. Haseldell. Headworks. Heppner. Hermiston. Hilgard. Hood River. Howardville Station. Ibex Mine. Ironside. Ironside. Joseph. Kamela.	John Day Snake	(03 T	50 .	$\frac{25}{40}$.	.04	. 6 1. 0	0 4.	55				. 20 . 12	.42			i		 			т.	T. T.	. 2	3 . .		ļ: [.]		::::		5	58 . 35 7	08 Г.	. 05 . .		2.53 3.01
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Table 2.—Daily precipitation for September, 1909. District No. 12—Continued.

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TABLE 3.—Maximum and minimum temperatures at selected stations for September, 1909. District No. 12, Columbia Valley.

		Mon	TA1	3.E 3.	.— <i></i>	i.Eimi	ım an	ia mi	nımu	n tem	perat	ures o	u selec	cect st	ation	s jor	Septer Ida	_	1909.	Dis	irict I	v 0. 1%	, Coli	umbia	vall	ey. 		
ā		Agiispeii.		- Missoula.	i	Afton, Wyo.		Boise.	F	Bonners Ferry.		Hotspring.		Tewiston.		Маскву.		Meadows.		Pocatello.		Salmon.		Shoshone.		Vernon.	:	Wallace.
Date	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.										
1 2 3 4 5	80 68 65 72 83	52 56 44 39 42	65 71 61 69 79	53 57 57 48 48	 		82 82 76 81 82	65 61 59 56 57	90 88 84 86 90	50 54 52 42 41	86 76 80 85 74	62 60 64 65 60	77 74 85 87 91	65 60 59 62 58	67 67 66 70 67	56 47 46 47 48	75 80 75 79 79	58 54 48 48 48	76 75 78 79 65	60 54 53 49 56	68 74 71 72 72	59 57 51 54 50	75 77 76 81 71	62 51 52 51 59	68 72 74 80 60	55 40 50 48 53	82 65 75 77 85	50 56 56 47 46
6 7 8 9 10	78 78 82 79 62	45 45 45 43 48	80 82 82 87 70	47 53 47 45 49			75 78 83 91 84	60 60 56 57 46	91 90 84 97 68	42 42 48 44 48	76 80 86 84 83	58 57 53 50 65	90 93 91 91 75	62 62 56 54 53	64 68 73 74 73	49 54 47 44 41	77 73 83 87 78	49 53 45 40 38	75 72 77 79 79	53 52 54 53 48	74 74 75 80 79	55 55 53 43 43	75 74 79 83 80	50 52 50 51 54	72 69 72 76 74	50 49 50 44 43	88 82 80 86 73	46 48 43 41 46
11 12 13 14 15	56 63 71 73 78	45 43 47 42 40	49 66 72 75 82	42 44 48 38 41			54 69 78 80 83	38 50 48 53	73 74 86 77 84	41 40 45 48 40	72 72 79 82 82	44 38 45 45 44	66 76 81 82 86	50 46 50 48 49	70 57 70 73 75	34 35 50 39 43	47 68 72 80 85	36 38 36 32 33	57 61 72 77 80	43 42 39 51 47	63 59 73 74 78	43 43 40 39 39	66 67 75 79 82	40 32 37 41 43	65 50 65 70 74	40 36 32 35 36	57 68 71 70 81	45 37 46 38 39
16 17 18 19 20	78 60 58 58 56	41 44 40 33 44	84 57 60 64 55	39 48 38 36 42			91 75 67 72 67	53 44 36 46 49	88 84 70 65 59	48 48 34 35 38	90 68 72 74 74	45 47 36 54 40	92 72 88 68 68	52 53 42 47 52	77 75 57 65 60	43 44 30 47 51	84 62 64 68 68	34 46 23 40 45	81 76 63 70 63	47 49 33 46 48	80 60 62 68 61	36 44 26 39 44	84 70 64 69 66	46 45 30 38 48	76 70 60 60 62	40 40 23 30 49	87 73 61 60 55	40 47 33 36 42
21 22 23 24 25	54 58 61 69 70	41 38 30 34 39	51 56 68 75 77	40 42 30 34 42			60 64 77 87 82	41 36 44 50 54	62 65 74 77 72	32 34 30 32 39	73 71 66 80 90	55 46 35 36 48	67 69 78 88 75	47 41 42 48 54	54 57 62 70 76	36 26 29 34 37	57 63 72 83 74	34 20 25 28 45	54 58 69 79 83	34 30 36 44 58	55 60 66 73 80	37 39 27 27 27 33	60 62 72 81 85	39 27 33 44 54	54 56 67 79 82	35 22 25 32 44	56 56 68 78 67	37 40 32 40 45
26 27 28 29 30	69 74 81 61 55	44 44 45 39 33	76 80 83 68 55	40 43 48 50 40			78 81 73 65 57	52 51 54 47 44	74 76 87 78 54	38 35 45 45 33	80 85 79 66 66	55 51 50 47 42	77 88 72 68 63	51 52 61 49 46	66 70 60 70 51	45 39 47 36 34	77 81 65 56 53	35 35 45 45 39	72 81 79 65 53	55 53 49 48 35	82 80 81 72 57	49 44 38 41 41	75 79 78 59 54	52 54 54 43 40	73 79 81 66 52	42 48 45 48 39	67 67 82 64 60	41 44 49 46 35
Mns	68.3	42.2	69. 9	44.3		 	75.8	50.4	78.2	41.4	77.7	49.9	78.6	52.4	66.8	41.9	72.0	39.7	71.6	47.3	70.8	43.0	73.3	45.7	68. 6	40.8	71.4	43.0
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Date.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.										
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6 7 8 9 10	65 68 64 63 63	48 52 58 56 51	71 70 72 62 67	45 48 56 56 52	95 93 87 88 75	43 42 41 40 50	88 81 82 71 61	45 44 44 47 51	94 94 82 83 72	61 63 60 55 59	56 62 63 59 58	52 52 55 55 54	92 89 84 82 66	58 60 57 56 52	94 91 91 85 87	50 50 48 45 45	56 62 63 58 60	49 49 53 52 44	78 68 74 69 61	57 52 58 56 52	95 93 88 87 83	61 60 58 57 52	88 87 82 84 67	51 56 59 52 52	79 70 74 69 62	56 52 55 55 51	54 58 60 59 58	51 49 53 53 51
11 12 13 14 15	62 64 65 70 83	45 45 50 40 42	64 66 66 62 69	42 41 50 37 39	72 82 80 82 86	38 35 42 33 34	62 78 49 58 90	44 48 48 43 39	76 83 80 78 86	54 49 54 51 54	56 56 56 57 72	53 51 52 49 50	72 84 81 79 84	52 50 57 50 48	88 79 80 80 88	45 38 48 39 40	55 57 57 58 67	37 41 44 38 39	64 70 67 69 72	48 52 54 51 51	76 85 82 84 89	47 46 57 56 57	67 75 75 76 85	46 48 54 44 46	65 72 69 72 72	46 47 53 46 48	58 54 53 54 59	49 50 50 48 47
16 17 18 19 20	62 64 65 59 59	44 42 39 49 51	73 64 62 52 64	40 53 36 46 50	89 74 67 63 63	33 48 27 36 42	83 60 69 55 56	40 48 34 39 47	85 73 73 66 65	53 51 44 49 46	56 56 54 55 56	51 51 49 50 50	86 81 68 63 66	45 44 38 42 42	87 88 85 80 70	42 44 43 34 46	60 59 55 52 58	42 39 38 47 49	72 61 61 55 62	49 49 47 50 53	92 77 68 69 69	60 47 40 51 45	88 65 63 60 63	50 48 41 40 45	73 62 64 57 61	49 47 42 51 51	56 55 55 52 54	48 48 47 48 49
21 22 23 24 25	62 68 72 61 68	44 42 45 48 41	62 62 67 63 63	52 48 37 47 51	66 70 77 64 60	29 30 28 34 34	61 73 82 67 68	46 35 36 39 47	71 75 71 77 69	45 46 43 46 55	55 56 78 54 54	52 49 52 52 51	67 69 74 77 68	38 42 36 44 53	70 68 70 70 72	35 35 36 34 36	58 57 62 57 54	49 44 41 42 37	61 63 79 63 58	50 49 48 53 51	69 75 76 80 73	40 44 46 52 53	61 64 72 84 66	41 42 36 49 50	64 63 76 63 59	48 46 43 50 52	54 57 68 57 54	49 48 50 50 46
26 27 28 29 30	70 76 64 60 61	45 38 46 49 40	61 64 64 56 59	36 33 43 51 49	71 83 62 57 58	42 34 46 46 34	72 85 76 66 47	44 37 50 43 43	73 74 68 62 63	52 47 57 52 41	55 63 55 54 55	47 50 52 51 50	69 77 73 65 62	42 46 46 50 35	85 85 80 65 63	35 40 43 32 32	54 62 62 58 56	31 34 42 47 40	62 67 72 59 60	49 47 53 51 48	72 79 77 72 63	54 59 58 49 39	72 81 66 58 56	45 42 57 45 42	62 69 74 60 59	50 43 52 49 45	51 55 60 58 54	44 45 49 52 50
Mns	67.6	46.6	65. 9	45. 5	77.3	39.3	73.0	43.8	78.5	53.0	59.0	51.5	77.5	49.5	81.9	42.4	59. 7	43.2	68. 3	51.9	80. 7	53. 9	73.8	49.1	69.3	50.1	57.1	48.9

Table 3.—Maximum and minimum temperatures at selected stations for September, 1909. District No. 12—Continued.

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Date.		Walla Walla, W		Ashland.		Baker City.	ţ.	Eugene.		Gold Beach.		nermiston.	 	Marshheid.	, , , , , , , , , , , , , , , , , , ,	Fortiand.		rineville.		Roseburg.		The Dalles.		Vale.
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	86 75 85 85 91	65 66 65 57 63	78 82 90 92 88	59 59 59 62 59	73 71 72 77 78	61 56 55 49 51	81 86 84 92 90	57 57 49 55 56	60 58 62 60 66	45 47 51 49 51	92 86 90 89 94	54 66 60 52 52	62 67 65 68 69	52 52 55 55 52 54	85 85 82 92 93	55 59 56 61 62	76 71 80 75 80	53 56 50 50 48	77 89 92 95 94	54 56 52 54 55	88 84 90 88 93	56 66 57 58 55	88 82 83 88 88	61 61 59 49 53
6	91 91 88 87 64	66 67 63 60 51	89 83 82 80 68	61 58 53 53 56	76 81 86 85 61	56 58 51 50 41	89 86 77 78 69	57 48 52 51 54	64 66 65 71 65	47 50 45 48 56	95 92 90 90 76	55 56 62 53 58	64 74 73 75 64	54 52 59 49 55	85 75 79 73 65	55 55 55 56 56	82 80 84 59	48 48 41 42 46	91 82 84 74 68	56 48 50 53 47	92 88 84 80 70	59 58 57 54 57	83 87 92 95 79	50 58 48 44 51
11 12 13 14 15	70 79 80 84 90	48 52 56 54 56	70 80 85 88 96	42 43 50 51 55	50 69 75 75 75 83	40 39 43 43 45	68 75 76 79 85	49 43 45 43 48	65 76 69 86 76	44 43 46 44 45	75 86 85 86 91	53 45 48 42 42	64 67 66 73 93	46 43 48 45 45	68 75 72 79 86	53 48 56 53 55	75 84 78 80 80	33 43 37 36 39	71 79 83 85 92	45 41 45 43 46	71 83 82 83 88	54 45 53 51 48	61 79 88 89 91	40 35 35 40 38
16	93 66 67 69 65	58 49 43 52 51	87 71 75 75 69	55 52 40 49 56	86 58 68 68 60	48 41 34 48 42	84 69 59 70 63	50 43 37 48 53	64 61 71 68 62	47 52 45 44 51	94 71 72 73 69	45 51 37 42 44	66 67 66 68 65	46 46 40 40 54	83 63 66 61 64	54 49 41 51 51	85 60 68 68 54	42 40 27 41 47	85 68 73 72 66	50 46 38 48 50	86 75 70 68 66	49 53 42 52 51	92 86 71 79 73	35 52 29 44 45
21 22 23 24 25	65 69 81 81 69	50 45 41 48 56	67 79 87 70 55	42 40 59 50 50	56 62 70 78 78	36 31 34 43 50	65 69 82 80 59	45 37 37 46 52	62 78 66 60 56	44 52 45 51 50	71 71 73 84 75	48 39 33 39 48	63 66 77 61 58	46 40 45 51 52	66 69 80 63 60	49 41 50 52 52	57 68 80 80 62	29 27 30 33 48	68 76 91 65 61	46 38 40 44 54	65 70 78 72 67	45 40 38 43 55	67 72 77 86 84	39 25 25 33 61
26	74 79 75 66 63	53 50 60 49 45	65 73 69 60 58	49 40 52 42 42	69 77 62 60 57	45 45 54 46 37	66 79 79 62 65	50 45 45 49 48	64 60 58 60 66	47 41 45 51 42	75 82 77 78 68	50 40 50 37 36	62 70 59 64 66	45 43 50 45 43	68 81 76 59 63	47 50 54 51 51	57 73 69 57 59	47 30 50 39 36	67 78 73 60 63	49 47 51 44 42	72 79 74 66 64	54 45 57 52 43	79 87 73 67 66	41 30 56 49 42
Mns	77.6	54.6	77.0	51.3	70.4	45.7	75. 5	48.3	65. 5	47.3	81.7	47.9	67.4	48.2	73.8	52.7	72.3	41.2	77.4	48.1	77.9	51.6	80.7	44.9